



09/681,936

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Wotring, et al.	Art Unit: 2177
Application No.: 09/681,936	Examiner: Srirama T. Channavajjala
Filed: 06/28/2001	Attorney Docket No.: 800549
Title: SYSTEM AND METHOD FOR SHARING DATA BETWEEN RELATIONAL AND HIERARCHICAL DATABASES	

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RESPONSE UNDER 37 CFR 1.111**Introductory Comments**

Dear Sir:

The Applicants thanks the Office for the careful consideration given the application in the communication of December 12, 2003. Applicant has amended claims 1, 7, 9, 18, 24, 28, 30 and 32 to further distinguish Applicants' claimed invention and to enable allowance of these claims. Claims 6, 8, 10, 23, 27, 29 and 31 have been canceled. The Applicants believes that the claims, as amended, define over the reference cited in the Office Action of December 12, 2003. Applicants contend that the cited reference neither structurally nor more generally, suggest the

claimed subject matter of Applicants' claimed invention. Contrary to the Office's assertion of anticipation, all elements of Applicants' claims, as amended, are not disclosed in the cited reference of Sacks (U.S. Patent No. 5,974,407). Therefore, the rejections are unsupported by the art and should be withdrawn. Applicants request reconsideration and examination of the application in view of the following amendments and discussion.

The current invention provides a method and system for transforming relational database information into a hierarchical data representation. It enables sharing between hierarchical and relational data structures without requiring the data to be remodeled to fit a common format or convention. The present invention does not rely on the relational database management system for implementing and restructuring relational data into a hierarchical structure. The only dependency upon the relational database management system is to access the relational data to be restructured by the present invention into a hierarchical structure. The present invention relies on the defining of hierarchical data entities that include simple and compound elements, whereby the simple elements of the hierarchical data entities include entity paths and mapped fields and the compound elements of the hierarchical data entities include entity paths, database names, database commands and database fields. It relies on defined paths stored in the elements of a data entity rather than on relational database management composite keys and tables to provide structural connections between the root and simple elements of the hierarchical data structure and to maintain the hierarchical parent/child relationships within families. Although the result produced by the present disclosed invention may be similar to that produced by the Sacks reference cited by the Office, the method disclosed in the present disclosure of achieving the result is patentably distinguishable from that method disclosed in the Sacks reference.

The cited reference of Sacks describes a method for constructing a hierarchical database

management system using a relational database management system as the implementing apparatus. The invention uses one or more relational database management system tables to store rows of a hierarchical database implemented by the hierarchical database management system. Composite keys, unique over all the tables, are used to maintain hierarchical families and maintain the hierarchical parent/child relationships within families. SQL select queries present hierarchical views of the hierarchical database. The Sacks invention allows both a hierarchical database and a relational database to be implemented in the same application using a single relational database management system to provide database services. It allows SQL statements to operate on both the hierarchical and relational database, and to operate on both hierarchical and relational tables together. The hierarchical database table specifications and root and child condition specifications specified by a developer are stored in tables created in the relational database management system that are part of the hierarchical database management system. Hierarchical keys that are unique among all the tables in the hierarchical database are used to support the hierarchical structure. The systems and methods disclosed in the Sacks disclosure are heavily reliant on the features and capabilities of a relational database management system, and are patentably distinguishable over Applicants' disclosed invention.